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RECORDATION DATE: 08/27/2001

REEL/FRAME: 012115/0428

NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

MALEKI, LUTFOLLAH

DOC DATE: 07/31/2001

ASSIGNOR:

YAO, XIAOTIAN S.

DOC DATE: 08/17/2001

ASSIGNOR:

ILCHENKO, VLADIMIR

DOC DATE: 08/22/2001

ASSIGNEE:

CALIFORNIA INSTITUTE OF TECHNOLOGY
1200 EAST CALIFORNIA BOULEVARD
PASADENA, CALIFORNIA 91125

SERIAL NUMBER: 09816872

FILING DATE: 03/22/2001

PATENT NUMBER:

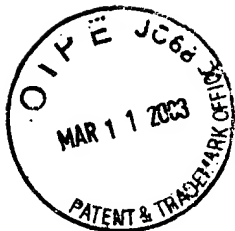
ISSUE DATE:

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Reviewed by [Signature] Secretary	
Initials: [Signature]	

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08-31-2001

Substitute Form PTO-1595
Attorney Docket No.: 06618-605001
Client's Ref. No.: CIT 3188

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Commissioner for Patents: Please record the attached original document(s) or copy(ies).	
1. Name of conveying party(ies): Lutfollah Maleki, Xiaotian S. Yao and Vladimir Ilchenko Additional name(s) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Name and address of receiving party(ies): California Institute of Technology 1200 East California Boulevard Pasadena, CA 91125 Additional names/addresses attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other: Execution Date: July 31, 2001; August 17, 2001; and August 22, 2001	8:21:01 RECEIVED MAR 24 2003 GROUP 3600
4. Application number(s) or patent number(s): If this document is being filed with a new application, the execution date of the application is: A. Patent Application No(s): 09/816,872 B. Patent No(s): Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Name/address of party to whom correspondence concerning document should be mailed: SCOTT C. HARRIS Fish & Richardson P.C. PTO Customer No. 20985 4350 La Jolla Village Drive, Suite 500 San Diego, California 92122	6. Total number of applications/patents involved: 1 7. Total fee (37 CFR §3.41): \$40 <input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Authorized to charge Deposit Account. 8. Deposit Account No.: 06-1050 Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.
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9. Statement and Signature: <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i> Bing Ai Reg. No. 43,312 Name of Person Signing Signature Date August 23, 2001	
Total number of pages including coversheet, attachments and document: 4	

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08/31/2001 DBYRNE 00000073 09816872

01 FC:581

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I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner of Patents, Washington, D.C. 20231.

August 23, 2001
Date of Deposit

Signature

Norman Green
Typed Name of Person Signing Certificate

ASSIGNMENT

For valuable consideration, we, LUTFOLLAH MALEKI of Pasadena, California, XIAOTIAN S. YAO of Diamond Bar, California, and VLADIMIR ILCHENKO of La Canada, California, hereby assign to: California Institute of Technology, a non-profit corporation having a place of business at: 1200 East California Boulevard, Pasadena, CA 91125; and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled NON-SPHERICAL WHISPERING-GALLERY-MODE MICROCAVITY, filed March 22, 2001, and assigned U.S. Serial Number 09/816,872; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Date:

7/31/01
LUTFOLLAH MALEKI

Date: _____

XIAOTIAN S. YAO

Date: _____

VLADIMIR ILCHENKO

Attorney Docket No. 06618-605001/CIT3188

ASSIGNMENT

For valuable consideration, we, LUTFOLLAH MALEKI of Pasadena, California, XIAOTIAN S. YAO of Diamond Bar, California, and VLADIMIR ILCHENKO of La Canada, California, hereby assign to: California Institute of Technology, a non-profit corporation having a place of business at: 1200 East California Boulevard, Pasadena, CA 91125; and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled NON-SPHERICAL WHISPERING-GALLERY-MODE MICROCAVITY, filed March 22, 2001, and assigned U.S. Serial Number 09/816,872; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Date: _____

LUTFOLLAH MALEKIDate: 8/17/01_____
XIAOTIAN S. YAO

Date: _____

VLADIMIR ILCHENKO

ASSIGNMENT

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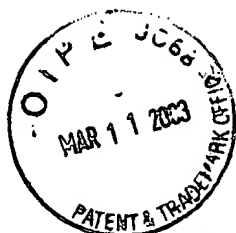
Date: _____

LUTFOLLAH MALEKI

Date: _____

XIAOTIAN S. YAODate: 8/22/01Bly -

VLADIMIR ILCHENKO



06618/416 001
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Patent and Trademark Office
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SEPTEMBER 04, 2001

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RECORDATION DATE: 06/18/2001

REEL/FRAME: 011920/0552
NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ILTCHENKO, VLADIMIR

DOC DATE: 05/09/2000

ASSIGNOR:

MALEKI, LUTE

DOC DATE: 05/09/2000

ASSIGNOR:

YAO, STEVE

DOC DATE: 05/29/2000

ASSIGNOR:

WU, CHI

DOC DATE: 05/31/2000

ASSIGNEE:

CALIFORNIA INSTITUTE OF TECHNOLOGY
1200 EAST CALIFORNIA BOULEVARD
MAIL CODE 201-85
PASADENA, CALIFORNIA 91125

SERIAL NUMBER: 09501824

FILING DATE: 02/10/2000

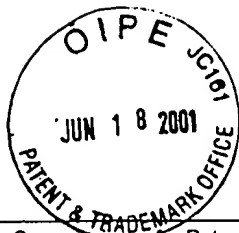
PATENT NUMBER:

ISSUE DATE:

NO INDEXING REQUIRED
Reviewed By Practice Systems
Kym C. 9/28/01

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06-27-2001

Substitute Form PTO-1595
Attorney Docket No.: 06618-416001
Client's Ref. No.: CIT2939

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4-1801

Commissioner for Patents: Please record the attached original document(s) or copy(ies).	
1. Name of conveying party(ies): Vladimir Ilchenko, Lute Maleki, Steve Yao and Chi Wu Additional name(s) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Name and address of receiving party(ies): CALIFORNIA INSTITUTE OF TECHNOLOGY 1200 East California Boulevard Mail Code 201-85 Pasadena, CA 91125
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other: Execution Date: 5/9/2000; 5/29/2000 and 5/31/2000	4. Application number(s) or patent number(s): If this document is being filed with a new application, the execution date of the application is: A. Patent Application No(s): 09/501,824 B. Patent No(s): Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Name/address of party to whom correspondence concerning document should be mailed: SCOTT C. HARRIS Fish & Richardson P.C. 4350 La Jolla Village Drive, Suite 500 San Diego, CA 92122	6. Total number of applications/patents involved: 1 7. Total fee (37 CFR §3.41): \$40 <input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Authorized to charge Deposit Account. 8. Deposit Account No.: 06-1050 Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.
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9. Statement and Signature: <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i> Scott C. Harris Reg. No. 32,030 Name of Person Signing Signature Date 6/18/01	
Total number of pages including coversheet, attachments and document: 5	

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06/26/2001 APMED1 00000181 09501824

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Date of Deposit

Signature

Jere Halligan
Typed Name of Person Signing Certificate

ASSIGNMENT

For valuable consideration, we, VLADIMIR ILTCHENKO of Pasadena, CA, LUTE MALEKI of Pasadena, CA, STEVE YAO of Diamond Bar, CA, CHI WU of San Marino, CA, hereby assign to CALIFORNIA INSTITUTE OF TECHNOLOGY, a California corporation having a place of business at: 1200 East California Boulevard, Mail Code 201-85, Pasadena, CA 91125, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us this day, entitled COUPLING SYSTEM TO A MICROSPHERE CAVITY, filed February 10, 2000, and assigned U.S. Serial Number 09/501,824, and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and serial number of said application when known; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and

assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

DATE: 5/9/2000

Bry -
Vladimir Iltchenko

DATE: 5/9/2000

L. Maleki
Lute Maleki

DATE: _____

Steve Yao

DATE: _____

Chi Wu

assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.


DATE: _____

Vladimir Ilchenko

DATE: _____

Lute Maleki

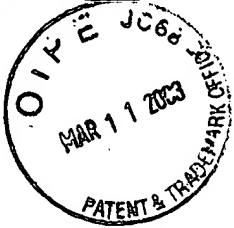
DATE: 5/29/00



Steve Yao

DATE: _____

Chi Wu



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Washington, D.C. 20231

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RECORDATION DATE: 08/27/2001

REEL/FRAME: 012115/0428
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

MALEKI, LUTFOLLAH

DOC DATE: 07/31/2001

ASSIGNOR:

YAO, XIAOTIAN S.

DOC DATE: 08/17/2001

ASSIGNOR:

ILCHENKO, VLADIMIR

DOC DATE: 08/22/2001

ASSIGNEE:

CALIFORNIA INSTITUTE OF TECHNOLOGY
1200 EAST CALIFORNIA BOULEVARD
PASADENA, CALIFORNIA 91125

SERIAL NUMBER: 09816872

FILING DATE: 03/22/2001

PATENT NUMBER:

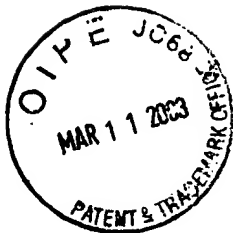
ISSUE DATE:

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Reviewed by Patent Systems
Initials: _____
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Attorney Docket No.: 06618-605001
Client's Ref. No.: CIT 3188

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Commissioner for Patents: Please record the attached original document(s) or copy(ies).	
1. Name of conveying party(ies): Lutfollah Maleki, Xiaotian S. Yao and Vladimir Ilchenko Additional name(s) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Name and address of receiving party(ies): California Institute of Technology 1200 East California Boulevard Pasadena, CA 91125 Additional names/addresses attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other: Execution Date: July 31, 2001; August 17, 2001; and August 22, 2001	8-27-01 RECEIVED MAR 24 2003 GROUP 3600
4. Application number(s) or patent number(s): If this document is being filed with a new application, the execution date of the application is: A. Patent Application No(s): 09/816,872 B. Patent No(s): Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
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DO NOT USE THIS SPACE	
9. Statement and Signature: <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i> Bing Ai Reg. No. 43,312 Name of Person Signing Signature Date August 23, 2001	
Total number of pages including coversheet, attachments and document: 4	

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August 23, 2001
Date of Deposit

Signature

Norman Green
Typed Name of Person Signing Certificate

ASSIGNMENT

For valuable consideration, we, LUTFOLLAH MALEKI of Pasadena, California, XIAOTIAN S. YAO of Diamond Bar, California, and VLADIMIR ILCHENKO of La Canada, California, hereby assign to: California Institute of Technology, a non-profit corporation having a place of business at: 1200 East California Boulevard, Pasadena, CA 91125; and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled NON-SPHERICAL WHISPERING-GALLERY-MODE MICROCAVITY, filed March 22, 2001, and assigned U.S. Serial Number 09/816,872; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Date:

7/31/01
LUTFOLLAH MALEKI

Date: _____

XIAOTIAN S. YAO

Date: _____

VLADIMIR ILCHENKO

Attorney Docket No. 06618-605001/CIT3188

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Date: _____

LUTFOLLAH MALEKIDate: 8/17/01_____
XIAOTIAN S. YAO

Date: _____

VLADIMIR ILCHENKO

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Date: _____

LUTFOLLAH MALEKI

Date: _____

XIAOTIAN S. YAODate: 8/22/01Bry

VLADIMIR ILCHENKO

assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

DATE: _____

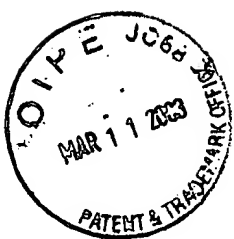
Vladimir Itchenko

DATE: _____

Lute Maleki

DATE: _____

Steve YaoDATE: 5/31/00Chi Wu
Chi Wu



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SEP 11 2001

FISH & RICHARDSON P.C.
LA JOLLA, CA



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Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SEPTEMBER 05, 2001

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SCOTT C. HARRIS
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4350 LA JOLLA VILLAGE DRIVE, SUITE 500
DAN DIEGO, CA 92122



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GROUP 3600

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DOC DATE: 06/07/2001

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SHARON BROOKS, EXAMINER
ASSIGNMENT DIVISION
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4. Application number(s) or patent number(s): If this document is being filed with a new application, the execution date of the application is: A. Patent Application No(s): 09/792,386 B. Patent No(s): Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Name/address of party to whom correspondence concerning document should be mailed: SCOTT C. HARRIS Fish & Richardson P.C. 4350 La Jolla Village Drive, Suite 500 San Diego, CA 92122	6. Total number of applications/patents involved: 1 7. Total fee (37 CFR §3.41): \$40 <input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Authorized to charge Deposit Account. 8. Deposit Account No.: 06-1050 Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.
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June 20, 2001
Date of Deposit

Signature

Typed Name of Person Signing Certificate

ASSIGNMENT

For valuable consideration, we, LUTFOLLAH MALEKI of Pasadena, California, XIAOTIAN S. YAO of Diamond Bar, California, VLADIMIR ILCHENKO of La Canada, California, hereby assign to: California Institute of Technology, a non-profit corporation having a place of business at: 1200 East California Boulevard, Pasadena, CA 91125; and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled FIBER-COUPLED MICROSPHERE LASER, filed February 23, 2001, and assigned U.S. Serial Number 09/792,386, and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and serial number of said application when known; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Date: 6/07/01

L. Maleki
Lutfollah Maleki

Date: 6/07/01

Xiaotian S. Yao
Xiaotian S. Yao

Date: 6/5/01

Vladimir Ilchenko
Vladimir Ilchenko